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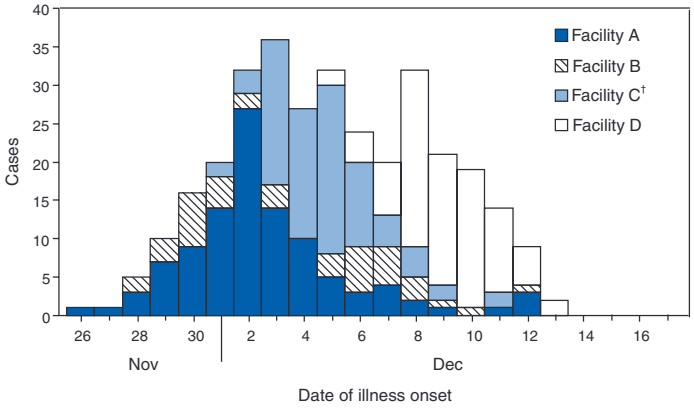
Norovirus Activity — United States, 2002

During June–December 2002, an increased number of outbreaks of acute gastroenteritis (AGE) were reported on cruise ships sailing into U.S. ports (*1*). In addition, since October 2002, several states have noted an increase in outbreaks of AGE consistent clinically and epidemiologically with norovirus infection, particularly in institutional settings such as nursing homes (CDC, unpublished data, 2002). This report describes recent norovirus activity in two states and New York City (NYC) and data from CDC that indicate the possible emergence of a predominant, circulating norovirus strain.

Washington

During November–December 2002, the Southwest Washington Health District, Clark County, Washington, received reports of 10 outbreaks of AGE affecting 354 patients from six long-term–care facilities (LTCFs), a community hospital, an outpatient clinic, and the county jail. Outbreaks in four LTCFs accounted for 327 (92%) of the cases, including 220 (49%) among 452 residents and 107 (33%) among 326 staff. Onset of illness for all patients occurred during November 26–December 13 (Figure). For all 354 patients, illness was characterized by diarrhea (84%), nausea (78%), and vomiting (77%). The mean duration of illness was 49 hours (range: 20–72 hours); mean duration of outbreak in the four LTCFs was 12 days (range: 9–16 days). Eight ill persons were hospitalized. Three of the four LTCFs included residents receiving various levels of care (i.e., nursing care). The fourth LTCF provided care exclusively for persons with Alzheimer's disease and experienced the highest attack rates (ARs) for residents (AR: 85%) and staff (AR: 41%), compared with the other three LTCFs (AR among residents: 42%; AR among staff: 30%). The range of dates of illness onset in each outbreak suggests person-to-person transmission. The incubation period was 24–48 hours. Six of seven stool specimens from ill patients in these four outbreaks were positive for norovirus by reverse transcriptase-polymerase chain reaction (RT-PCR) tests performed at Washington State Public Health Laboratories and included at least one positive specimen from each of the four outbreaks. Public health nurses visited all affected LTCFs to help implement control measures, including confining ill residents to their rooms and excluding ill staff from

FIGURE. Number* of cases of norovirus-associated acute gastroenteritis in four long-term–care facilities, by date of illness onset — Clark County, Washington, November–December 2002



*n = 327.
†Alzheimer's facility.

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

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work until 48 hours after recovery; emphasizing hand hygiene for staff in accordance with recent CDC recommendations (*2*); disinfecting environmental surfaces with 10% bleach solution; and postponing visits from elderly persons, very young children, and persons with underlying medical conditions. The number of cases declined in all four LTCFs after these interventions.

New Hampshire

During 2002, the New Hampshire Department of Health and Human Services (NHDHHS) investigated 35 outbreaks of AGE consistent clinically and epidemiologically with norovirus infection from LTCFs and assisted-living facilities (n = 29), restaurants (n = two), schools (n = two), and residential summer camps (n = two). Of the 29 outbreaks in LTCFs and assisted-living facilities, 28 were reported during November–December 2002. In 10 (29%) outbreaks, an etiology of norovirus was confirmed by RT-PCR testing of fecal specimens at NHDHHS or CDC, and 25 (71%) outbreaks were attributed to norovirus based on epidemiologic criteria (*3*). A total of 2,312 persons had AGE during the 35 norovirus outbreaks, resulting in 13 hospitalizations; two ill patients in LTCFs died. Epidemiologic investigation implicated person-to-person, foodborne, and waterborne transmission in 32, two, and one outbreak, respectively. Control measures in the LTCFs and assisted-living facilities included frequent and thorough hand washing, rapid cleaning of soiled areas, excluding ill staff from work for 48 hours after resolution of symptoms, ceasing of group activities, and stopping new admissions into the facilities.

New Hampshire's Emergency Department Syndromic Surveillance System also detected an increase in emergency department (ED) visits for gastrointestinal illness during December 2002. In response, NHDHHS alerted all state hospitals, which increased testing for norovirus by the state laboratory. Since January 1, 2003, an additional 11 norovirus outbreaks have been reported in institutional settings; investigations are ongoing.

New York City

During November 6, 2002–January 13, 2003, a total of 66 outbreaks of AGE consistent epidemiologically with norovirus infection occurred in NYC and were reported to the NYC Department of Health and Mental Hygiene (DOHMH) or the New York State Department of Health (NYSDOH). The outbreak settings included 51 nursing homes, LTCFs, and rehabilitation facilities; 10 hospitals; three restaurants; one homeless shelter; and one school. Approximately 1,700 persons were affected. Twenty-nine stool specimens were collected

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from ill patients during outbreaks in the facilities and were tested for norovirus by RT-PCR performed either at YSDOH Wadsworth Center or CDC. Nineteen (66%) specimens tested positive for norovirus, one to 10 positive specimens from each of the six outbreak settings. Control measures implemented throughout all 51 residential facilities included appropriate hand washing techniques, rapid cleaning of contaminated areas, and exclusion of ill persons from institutional and congregate settings (e.g., schools and child care centers) until 48 hours after symptoms resolved.

On November 8, 2002, through its Emergency Department Syndromic Surveillance System, DOHMH detected a sustained citywide increase in ED visits from patients with diarrhea and vomiting. Through broadcast facsimile and e-mail, DOHMH alerted physicians to collect and send specimens for diagnostic testing for norovirus in all patients with AGE illness. Physicians also were encouraged to counsel patients about appropriate control measures. To identify an etiologic agent, DOHMH field staff were sent to EDs at two hospitals in areas with higher numbers of patients with AGE. Three of four stool specimens collected from patients reporting to EDs were positive for norovirus.

CDC Laboratory Surveillance

During May–December 2002, CDC received stool specimens from 48 outbreaks of AGE in the United States. Outbreak settings included restaurants and catered events (n = 12), cruise ships (n = nine), schools and child care centers (n = seven), LTCFs and assisted-living facilities (n = five), residential camps (n = two), sporting events (n = two), and other (n = 11). Specimens from 37 outbreaks were tested for norovirus by RT-PCR; specimens from 11 outbreaks were unsuitable for testing by RT-PCR. Initial RT-PCR testing by using degenerate primers targeted to a 213-base region of the polymerase gene (Region B) (*4–6*) identified norovirus in specimens from 27 (73%) of the 37 outbreaks. Genetic characterization, based on sequencing of a different 277-base pair region of the capsid gene (Region C) (*5,6*), found that 11 (41%) of the 27 norovirus-positive outbreaks were associated with the same strain of norovirus. This lineage within genogroup II, cluster 4 (GII/4) (*4,5*) has been provisionally named the Farmington Hills strain, after Farmington Hills, Michigan, where the first cases with this norovirus strain were identified. Six of the 11 outbreaks associated with the Farmington Hills strain of norovirus occurred on land in five states (Arkansas, Georgia, Kentucky, North Carolina, and Utah). The remaining five outbreaks were associated with cruise ships. No epidemiologic link has been identified between land and cruise ship outbreaks. In addition, specimens from two of the six norovirus-positive outbreaks in NYC and the three norovirus-positive specimens collected in NYC EDs were sequenced further at CDC. The Farmington Hills strain was identified in one of the two outbreaks and two of the three single specimens.

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Editorial Note: This report highlights increased norovirus circulation in the United States. Noroviruses are the most common cause of gastroenteritis in the United States and cause an estimated 23 million cases of AGE annually (*1*). Although attention has been drawn recently to outbreaks of norovirus on cruise ships, an estimated 60%–80% of all outbreaks of AGE occur on land (*4*). In addition, although many reports have focused on foodborne transmission of noroviruses (*7*), this and other recent reports highlight the potential of norovirus to cause large outbreaks in institutional settings through nonfoodborne modes of transmission (*4,5,8*). Anecdotal reports from other state health departments throughout the United States also are consistent with recent increased activity of norovirus within institutional and closed settings.

The cause of the increase in norovirus activity is unclear, although it is probably associated with an increase in community incidence of norovirus infection, as suggested in NYC and New Hampshire. Outbreaks of norovirus disease in closed settings have been documented, particularly during the winter (*8,9*).

Since July 2002, a total of 41% of outbreaks in which strains were characterized genetically at CDC were associated with a single, newly identified strain of norovirus. The strain was found in various settings and over a wide geographic distribution, and no common source of these outbreaks has been identified. The finding of a predominant strain is unusual and contrasts with surveillance data from 1997–2000, which rarely detected identical strains from distinct outbreaks (*4*). However, data from 1995–1997 suggested the emergence of a globally common strain that accounted for 55% of all norovirus outbreaks investigated by CDC during that period (*5*). Like the Farmington Hills strain, the "common strain" of 1995–1997 was classified as a GII/4 strain. These strains

have been associated previously with outbreaks in closed settings, and it is possible that this GII/4 predominant strain of norovirus has characteristics of infection that increase person-to-person transmissibility, such as an increased prevalence of vomiting (*4*). Characteristics of norovirus include a low infectious dose, relative stability in the environment, and spread through multiple modes of transmission (Box), which make norovirus outbreaks difficult to control (*8,9*). Measures to prevent spread should include emphasizing basic food and water sanitation measures and encouraging good hygiene, particularly appropriate hand washing techniques, disposal of waste and soiled materials, and disinfection.

Development of more sensitive and specific RT-PCR detection methods and the increased use of nucleotide sequencing of detected strains (*4,6*) has enabled the identification of a common strain of norovirus and the possibility of linking outbreaks of norovirus disease throughout the United States and the world. However, no surveillance of nonfoodborne outbreaks of AGE exists in the United States (*10*). Development of improved surveillance systems to monitor endemic and epidemic norovirus disease is needed to understand modes of transmission and identify more specific control measures. CaliciNet is a database system under development that collects molecular and epidemiologic data from outbreaks of norovirus throughout the United States (CDC, unpublished data, 2002). Efforts to incorporate web-based reporting of nonfoodborne outbreaks of AGE by states are under way.

CDC encourages local and state health departments to test for noroviruses when investigating outbreaks of suspected viral AGE. For assistance in testing for noroviruses and for strain characterization, local and state health departments should contact CDC's Viral Gastroenteritis Section, telephone 404-639-3577 or e-mail CaliciNet@cdc.gov.

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BOX. Epidemiology, diagnosis, treatment, and prevention of norovirus-associated acute gastroenteritis

Epidemiology
- Distributed throughout the United States
- Affects all age groups
- Multiple modes of transmission: direct person-to-person contact, consumption of contaminated food or water, airborne droplets of vomitus, and contact with contaminated environmental surfaces
- Infectious dose of as few as 10 viral particles

Clinical findings
- 30% of infections might be asymptomatic
- Incubation period: 24–48 hours
- Disease characterized most frequently by
  - — Acute onset vomiting
  - — Watery nonbloody diarrhea
    and one or more of the following:
    - — Abdominal cramps
    - — Nausea
    - — Fever
    - — Headache
- Dehydration most common complication in young and elderly
- Duration of illness: 12–60 hours

Laboratory testing
- Diagnosis made by detection of norovirus by reverse transcriptase polymerase chain testing of stool or emesis specimens
  - — Sequencing of norovirus for genotype and cluster identification
- Older methods for diagnosis include
  - — Direct and immune electron microscopy of fecal samples
  - — Demonstration of fourfold increase in IgG antibodies in paired acute- and convalescent-phase serum samples

Treatment
- No specific therapy for norovirus illness
- Symptomatic therapy consisting of replacement of fluids and electrolytes

Prevention
- Provision of safe food and water
- Frequent hand washing
- Ensuring that ill foodhandlers do not work until well
- Disinfection by using at least a 1:50 solution of domestic bleach

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Deaths Among Drivers of Off-Road Vehicles After Collisions with Trail Gates — New Hampshire, 1997–2002

During April–July 2002, three deaths occurred on New Hampshire trails when adolescents driving off-highway recreational vehicles (OHRVs) collided with trail gates. Because of these three incidents, the New Hampshire Department of Health and Human Services conducted a study to determine the extent of the problem and characteristics of the fatal events. This report describes trail gate fatalities in New Hampshire during 1997–2002. To prevent trail gate collisions, efforts should focus on increased enforcement of OHRV operating rules, driver education, enhanced gate visibility, and improved signage.

A case was defined as the death of a person on an OHRV who collided with a trail gate in New Hampshire during 1997–2002. Cases were identified by reviewing New Hampshire Fish and Game Department (NHFGD) reports and by searching newspaper accounts by keywords.

Case Reports

Case 1. On July 14, 2002, a boy aged 12 years was riding a registered motorbike on the Rockingham Trail (Rockingham County), when he struck a trail gate at 2:25 p.m. The boy was familiar with the trail, had been riding for several hours, was wearing protective equipment (helmet, chest protector, and riding boots), and was accompanied by adults, but he had not taken a safety course. He looked back just before hitting the gate. His death was immediate and caused by a cervical spine injury.

Case 2 On April 13, 2002, a boy aged 17 years with a valid New Hampshire driver's license was riding an unregistered all-terrain vehicle (ATV) on a closed section of a trail in Keene during a rain storm when he struck a trail gate at 10:23 p.m. The driver's blood alcohol concentration (BAC) was 0.22 mg/dL (state BAC limit for OHRV operators: <0.08 mg/dL). The driver was familiar with the trail, had been riding with friends for approximately 1.5 hours when his ATV headlight stopped working, and was reportedly accelerating when the ATV struck the trail gate. He died from massive chest injuries. Neither the driver nor his passenger was wearing a helmet; the passenger was treated for head and neck injuries and recovered.

Case 3 On April 5, 2002, a boy aged 16 years was riding a motorbike without a working headlight on a closed section of the Rockingham Trail when he struck a trail gate at 6:48 p.m. (30 minutes after sunset). The driver had turned onto the trail to evade police, who had noticed his unregistered motorbike. A witness reported that the driver was going approximately 40–50 mph when he hit the gate. Within minutes, the driver died from blunt abdominal injuries. A passenger on the motorbike was not injured seriously . The driver was wearing a helmet; it is unknown whether he had a valid driver's license.

Case 4 On January 26, 2000, a girl aged 16 years was riding a registered snowmobile on a trail in Mason when she struck a trail gate at 7:02 p.m. She was riding with her father off their property for the first time. The lights on her snowmobile were working and she was wearing a helmet, but she had not taken a safety course and did not have a driver's license. She went around two or three trail gates before the fatal collision. Evidence of braking was observed approximately 20 feet in front of the gate. The driver was ejected from the snowmobile and pronounced dead at the hospital; her death was caused by a cervical spine injury.

Case 5 On November 18, 1997, a man aged 31 years with a valid New Hampshire driver's license was driving a snowmobile with an expired registration on the Rockingham Trail when he struck a trail gate at 10:11 p.m. The driver's BAC was 0.12 mg/dL. He was driving without a working headlight, reportedly was driving fast, and was not wearing a helmet. When the driver saw the gate, he told his passenger to duck. The driver died immediately of massive chest injuries, and the passenger sustained minor injuries.

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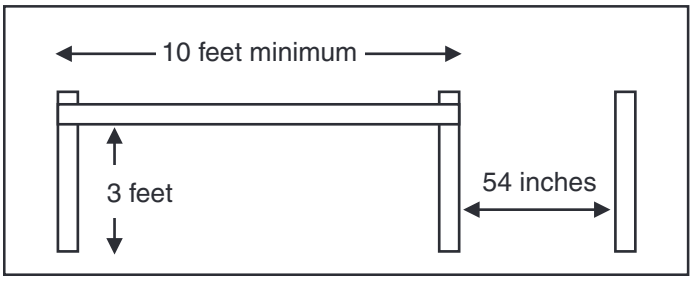
Editorial Note: The New Hampshire Bureau of Trails (NHBT) manages approximately 300 miles of rail trails. Rail trails are old railroad tracks that have been converted to trails for OHRV (primarily snowmobile) use. The rails and ties have been removed from the trails. The surface is gravel and dirt, and the trails are usually straight for long distances. Trail gates allow access of emergency vehicles and equipment to maintain the trail while excluding conventional motor vehicles (Figure 1). The recommended height of the gates is 3 feet, and the recommended length is ≥10 feet. The gates are painted Occupational Safety and Health Administration or Omaha

FIGURE 1. Diagram of a New Hampshire trail gate



orange and have reflectors placed every 3 feet on the cross bar and diagonally on the gate uprights. The New Hampshire Department of Resources and Economic Development guidelines recommend that reflective signs be placed at a reasonable and safe distance ahead of the gates.

In New Hampshire, all OHRVs must be registered with NHFGD. In 2002, approximately 82,000 OHRVs were registered; of these, approximately two thirds were snowmobiles. NHFGD conducts safety training courses for OHRV operators. State law requires that OHRV operators driving off their private property either possess a valid driver's license or have taken the safety training course. Anyone aged <18 years who has not taken the safety course must be accompanied by a licensed adult and must wear eye protection and a helmet. NHBT rules prohibit ATVs or trail bikes on the trails between 30 minutes after sunset and 30 minutes before sunrise, but in the winter, OHRVs can operate at night if they have a working headlight and taillight. In addition, it is illegal for a driver with BAC ≥0.08 mg/dL to operate an OHRV. On rail trails, the speed limit is 45 mph for snowmobiles and 35 mph for motorbikes and ATVs.

During July 1, 2001–June 30, 2002, nine fatalities occurred on OHRVs in New Hampshire, two of which involved trail gates (NHFGD, unpublished data, 2002). In the case series described in this report, fatalities involving trail gates occurred most frequently among males who were young or intoxicated. A high proportion of the collisions at night occurred on OHRVs that did not have operating headlights. Three of the five deaths occurred on the Rockingham Trail, and two fatalities occurred on sections of trails that were closed to the type of vehicle involved in the incident.

The findings in this report are subject to at least four limitations. First, data were unavailable for some variables (e.g., speed and length of time on trail). Second, cases represent only fatalities and do not include trail gate injuries and hazards. Third, because of the lack of denominators, assessment of risk was not possible. Finally, case finding might have been incomplete, resulting in underreporting of fatalities.

As a result of increased public concern about these fatalities, NHBT has worked to increase the visibility of trail gates. The gates now have a polyvinyl chloride (PVC) pipe, 4 inches in diameter and 10 feet long around the metal bar (Figure 2). The color of the PVC pipe alternates every 12 inches between black, orange, and green. The alternating colors help show definition, which is important for color-blind persons. Warning signs (e.g., "Caution Gate Ahead") are being posted 250 feet in front of each gate on cedar posts with orange and green markings. In addition, flexible posts, which collapse when hit but should not injure OHRV operators, are being placed 100 feet in front of trail gates on certain sections of the Rockingham trail where trail design differs from the usual design.

Measures to improve vehicle safety include safety inspections, headlights that turn on automatically when the OHRV engine is started, and speed governors (i.e., devices to limit maximum speed). Measures to improve driver safety include reducing speed limits on rail trails, strengthening enforcement of OHRV operating rules, requiring that all OHRV drivers take a safety course, and imposing age restrictions for OHRV use (*1*). NHBT has reduced the speed limit for all OHRVs to 25 mph on trails that allow summer ATV and motorbike use and 10 mph within 250 feet of stop signs and trail gates.

Acknowledgments

This report is based on contributions by P Gray, C Gamache, New Hampshire Dept of Resources and Economic Development. R Shults, PhD, Div of Unintentional Injury Prevention, National Center for Injury Prevention and Control; J Magri, MD, Epidemiology Program Office, CDC.

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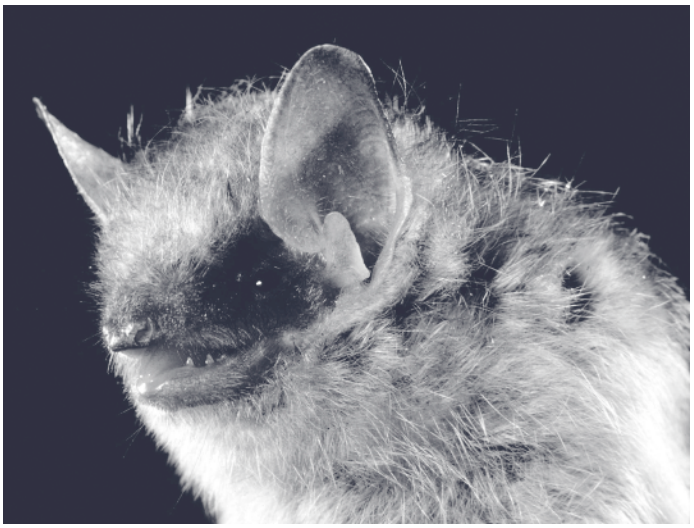
FIGURE 2. Redesigned trail gate and warning signs — New Hampshire

Human Rabies — Iowa, 2002

On September 28, 2002, a man aged 20 years residing in Linn County, Iowa, died from rabies encephalitis caused by infection with a variant of rabies virus associated with silver-haired (*Lasionycteris noctivagans*) (Figure) and eastern pipistrelle (*Pipistrellus subflavus*) bats. This is the first case of human rabies in Iowa since 1951. This report summarizes the investigation of the case by the Linn County and Iowa public health departments. Bats found in living quarters should be submitted to local public health laboratories for rabies testing.

On September 16, the man sought care at the emergency department of a Cedar Rapids hospital complaining of nausea and vomiting, generalized abdominal pain, shortness of breath, headache, and back stiffness. He reported drinking numerous beers and expressed a concern about alcohol poisoning. The patient was treated with an antiemetic and discharged with prescriptions for antianxiety and antinausea medications. He returned later the same day for reevaluation but left without being seen. He returned again the next day complaining of the same symptoms, at which time he was noted to be hostile, paranoid, and hallucinating. He was admitted to the hospital with a diagnosis of suspected drug reaction or withdrawal syndrome. Brain magnetic resonance imaging (MRI) and electroencephalogram (EEG) performed during the first 24 hours of hospitalization were normal, and the patient received multiple doses of sedative-hypnotic drugs for treatment of agitation. His condition deteriorated with development of fever of 101.5° F (38.6° C) and increasing tremors, followed by intractable seizure requiring intensive care. On September 19, he was placed on ventilator support. He received empiric therapy for encephalitis, including acyclovir and ceftriaxone, and multiple anticonvulsants. On September 23, the patient had evidence of profound neurologic impairment with fixed and unreactive pupils, and repeat neuroimaging showed early herniation. A surgical procedure to decrease intracranial pressure was performed, and a brain biopsy (occipital lobe) was taken. Contact and droplet precautions were initiated after the procedure. On September 28, ventilator support was withdrawn, and the patient died.

FIGURE. Silver-haired bat



Photo/Merlin D. Tuttle, Bat Conservation International

On September 25, clinical specimens, including occipital lobe biopsy tissue impression slides, cerebrospinal fluid, and saliva, were submitted for rabies virus evaluation to the University of Iowa Hygienic Laboratory (UHL). Direct fluorescent antibody (DFA) staining of the occipital lobe biopsy slides was inconclusive but suggestive of rabies infection. A subsequent nuchal biopsy, taken on September 27 and sent to CDC laboratories, was strongly positive by DFA for rabies virus antigen and was positive by reverse transcription polymerase chain reaction (RT-PCR) for rabies virus RNA. The virus variant involved in this infection was determined by DNA sequence analysis to be most similar to variants found in silver-haired and eastern pipistrelle bats. The diagnosis was confirmed postmortem at UHL by DFA examination of specimens from the brain stem and cerebellum.

The source of the patient's infection remains unclear. No specific history of exposure to bats was reported. The patient had been bitten by a dog approximately 12 days before admission; the animal was determined to be free of rabies. No evidence of bat infestation in the patient's house was found, and family and friends did not recount any episodes of potential contact between the patient and bats.

The patient apparently was healthy before this incident. A substantial portion of the patient's social activity occurred during evenings, and preliminary investigation suggested that multiple persons could have been exposed to live virus from the patient through shared use of glasses, bottles, cigarettes, and other vehicles for saliva contamination of mucus membranes. The patient was a musician and had traveled to recording studios in several cities in Iowa and Illinois during the prodrome of his illness. Because family members were not able to provide public health authorities with contact information for many of the patient's associates, a decision was made, with consent of family members, to release the patient's name to the media to facilitate contact tracing and screening for rabies post-exposure prophylaxis (PEP). County public health staff also attended funeral services to counsel associates of the patient who had not yet come forward. A total of 53 family members or associates of the patient received PEP. No persons with potential exposure outside of the Cedar Rapids area were identified.

Several hospital staff also reported potential exposure to the patient's bodily fluids before isolation precautions were initiated. Public health officials presented information to potentially exposed employees on September 30. Hospital staff were requested by hospital administrators to make their own risk assessment and decision about starting PEP based on the information provided. A total of 71 hospital staff, including five physicians, received PEP.

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Editorial Note: Incidence of human rabies in the United States has declined sharply during the last several decades, from an average of 11 persons per year in the 1950s to fewer than three persons per year during the 1990s (*1,2*). This decline is associated largely with successful control of rabies in domestic dogs. Nonbite-associated (i.e., cryptic) cases of rabies — those cases for which no evidence or history of animal bite is established (*3*) — now constitute the largest category of human rabies cases in the United States (78% of all cases occurring during the 1990s compared with 23% during the 1950s). A history of animal bite was reported in only seven of the last 35 documented human rabies cases (five dog bites acquired overseas and two bat bites acquired domestically). The high proportion of cases that are reported as cryptic probably is attributable to several factors, including the difficulties associated with obtaining detailed exposure histories from neurologically impaired patients and the possibility that bites from very small mammals, such as bats, might go unnoticed.

Molecular typing of viral RNA obtained from clinical specimens permits rapid identification of the virus variant involved in the infection, but virus typing in the absence of specific exposure history cannot identify the source of human rabies infections definitively. Variants specific to one vertebrate host can be found in animal species other than that of their natural reservoir; for example, bat-variant rabies viruses have been found in domestic cats (*4*). However, virus typing provides a valuable epidemiologic clue to the source of an infection and is important for targeting prevention efforts. In the case described in this report, the rabies virus type was determined to be most similar to that found naturally in silver-haired and eastern pipestrelle bats, which range widely throughout North America, including Linn County. Both are solitary, forest-dwelling animals not found commonly in human dwellings.

This is the third report of human rabies published during 2002 (*5,6*). All were attributed to viruses identified as bat variants (two silver-haired/eastern pipistrelle variant and one Mexican free-tail variant); none of the three cases had a specific history of bat bite recorded. Of 35 human rabies deaths recorded since 1990 in the United States, 26 (74%) have been associated with bat-variant rabies viruses, but in only two cases was a bite history documented (*2*). Human rabies is preventable with properly performed and timely administration of rabies PEP (*7*). However, prevention efforts are complicated if the patient does not recognize that an exposure has occurred.

Although bats have an important role in local ecosystems, they can be a source of rabies infection in humans. Messages to the public should emphasize that bats can transmit rabies virus to humans. Bats should be excluded from human living quarters and should never be handled with bare hands. When a bat is found in living quarters and the possibility exists that an unrecognized exposure has occurred, the animal should be submitted to a local public health laboratory for diagnostic testing. Testing of suspect animals ensures rapid PEP where indicated and minimizes unnecessary prophylaxis in persons not exposed to rabies virus.

Acknowledgments

This report is based on data reported by K Erickson, Linn County Public Health Dept, Iowa. C Hanlon, VMD, L Orciari, MS, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases, CDC.

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Notice to Readers

Conference on Vaccine Research

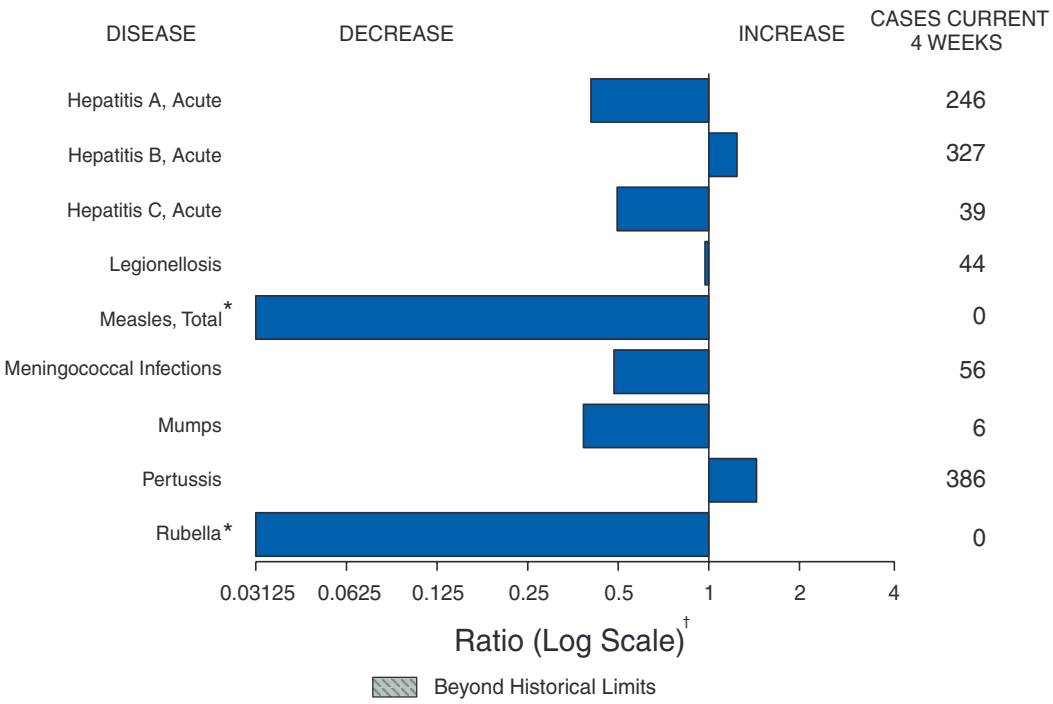
The sixth annual conference on Vaccine Research: Basic Science, Product Development, Clinical and Field Studies will be held May 5–7, 2003, in Arlington, Virginia. The meeting is co-sponsored by CDC, the National Foundation for Infectious Diseases (NFID), and nine other national and international agencies, institutes, and organizations involved in research, development, and use of vaccines and associated technologies for the prevention of human and veterinary diseases through vaccination.

The deadline for online submission of abstracts for oral and poster presentations is February 7. Program announcements and forms for abstract submission, registration, and hotel reservation are available at http://www.nfid.org/conferences/vaccine03, and from NFID, Suite 750, 4733 Bethesda Avenue, Bethesda, MD, 20814-5278; telephone 301-656-0003, ext. 19; fax 301-907-0878; or e-mail vaccine@nfid.org.

Erratum: Vol. 51, No. 47

In the Notice to Readers, "World AIDS Day, December 1, 2002," an error occurred in the fifth paragraph, second column on page 1074. The first sentence should read, "At the end of 2001, an estimated 850,000–950,000 persons in the United States (*4*) and 40 million persons worldwide were living with HIV/AIDS." Reference 4 should read, "Fleming P, Byers RH, Sweeney PA, Daniels D, Karon JM, Janssen RS. HIV prevalence in the United States, 2000 [Abstract]. In: Program and abstracts of the 9th conference on retroviruses and opportunistic infections. Seattle, Washington: February 24–28. Available at http://www.retroconference.org/2002/abstract/13996.htm."

FIGURE I. Selected notifiable disease reports, United States, comparison of provisional 4-week totals ending January 18, 2003, with historical data



* No measles or rubella cases were reported for the current 4-week period yielding a ratio for week 3 of zero (0).
† Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary of provisional cases of selected notifiable diseases, United States, cumulative, week ending January 18, 2003 (3rd Week)*

	Cum. 2003	Cum. 2002		Cum. 2003	Cum. 2002
Anthrax	-	-	Hansen disease (leprosy)†	1	2
Botulism:	-	-	Hantavirus pulmonary syndrome†	2	-
foodborne	-	-	Hemolytic uremic syndrome, postdiarrheal†	1	7
infant	3	6	HIV infection, pediatric†§	-	9
other (wound & unspecified)	-	3	Measles, total¶	-	-
Brucellosis†	-	4	Mumps	6	4
Chancroid	2	3	Plague	-	-
Cholera	-	-	Poliomyelitis, paralytic	-	-
Cyclosporiasis†	-	6	Psittacosis†	2	7
Diphtheria	-	-	Q fever†	2	2
Ehrlichiosis:	-	-	Rabies, human	-	-
human granulocytic (HGE)†	4	5	Rubella	-	-
human monocytic (HME)†	4	1	Rubella, congenital	-	1
other and unspecified	-	-	Streptococcal toxic-shock syndrome†	4	3
Encephalitis/Meningitis:	-	-	Tetanus	1	-
California serogroup viral†	-	-	Toxic-shock syndrome	1	7
eastern equine†	-	-	Trichinosis	-	-
Powassan†	-	-	Tularemia†	2	2
St. Louis†	-	-	Yellow fever	-	-
western equine†	-	-			

-: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).
† Not notifiable in all states.
§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention (NCHSTP). Last update November 24, 2002.
¶ No cases of indigenous or imported measles were reported.

TABLE II. Provisional cases of selected notifiable diseases, United States, weeks ending January 18, 2003, and January 19, 2002 (3rd Week)*

Reporting area	AIDS		Chlamydia†		Coccidiodomycosis		Cryptosporidiosis		Encephalitis/Meningitis West Nile	
	Cum. 2003§	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	-	1,842	24,204	39,000	193	85	54	110	-	-
NEW ENGLAND	-	81	706	1,363	-	-	2	2	-	-
Maine	-	-	89	73	N	N	-	-	-	-
N.H.	-	2	81	97	-	-	-	-	-	-
Vt.	-	3	41	47	-	-	1	-	-	-
Mass.	-	76	185	519	-	-	1	2	-	-
R.I.	-	-	151	168	-	-	-	-	-	-
Conn.	-	-	159	459	-	-	-	-	-	-
MID. ATLANTIC	-	427	538	4,138	-	-	20	15	-	-
Upstate N.Y.	-	20	197	165	-	-	2	1	-	-
N.Y. City	-	402	3	1,832	-	-	17	9	-	-
N.J.	-	5	338	746	-	-	-	1	-	-
Pa.	-	-	-	1,395	N	N	1	4	-	-
E.N. CENTRAL	-	188	6,161	6,965	1	2	2	35	-	-
Ohio	-	47	2,948	1,613	-	-	-	3	-	-
Ind.	-	35	1,001	768	N	N	-	-	-	-
Ill.	-	70	831	2,204	-	-	-	11	-	-
Mich.	-	31	1,102	1,544	1	2	2	4	-	-
Wis.	-	5	279	836	-	-	-	17	-	-
W.N. CENTRAL	-	28	1,106	2,164	-	-	8	5	-	-
Minn.	-	-	12	599	-	-	3	1	-	-
Iowa	-	4	128	75	N	N	2	1	-	-
Mo.	-	22	364	769	-	-	1	2	-	-
N. Dak.	-	-	4	38	N	N	-	-	-	-
S. Dak.	-	-	124	96	-	-	2	-	-	-
Nebr.	-	-	-	149	-	-	-	1	-	-
Kans.	-	2	474	438	N	N	-	-	-	-
S. ATLANTIC	-	666	6,149	5,758	-	-	14	25	-	-
Del.	-	-	174	131	N	N	-	-	-	-
Md.	-	134	897	760	-	-	2	-	-	-
D.C.	-	-	147	178	-	-	-	1	-	-
Va.	-	65	699	643	-	-	-	-	-	-
W. Va.	-	1	113	137	N	N	-	-	-	-
N.C.	-	1	1,573	457	-	-	1	2	-	-
S.C.	-	42	107	827	-	-	-	-	-	-
Ga.	-	222	1,046	360	-	-	9	19	-	-
Fla.	-	201	1,393	2,265	N	N	2	3	-	-
E.S. CENTRAL	-	40	1,725	2,820	-	-	1	2	-	-
Ky.	-	2	284	417	-	-	-	1	-	-
Tenn.	-	38	513	1,045	-	-	1	-	-	-
Ala.	-	-	658	845	-	-	-	-	-	-
Miss.	-	-	270	513	N	N	-	1	-	-
W.S. CENTRAL	-	312	4,571	5,986	-	-	1	3	-	-
Ark.	-	13	339	441	-	-	1	1	-	-
La.	-	-	536	837	N	N	-	-	-	-
Okla.	-	7	302	564	N	N	-	-	-	-
Tex.	-	292	3,394	4,144	-	-	-	2	-	-
MOUNTAIN	-	51	1,654	2,487	182	37	5	4	-	-
Mont.	-	-	125	104	-	-	-	-	-	-
Idaho	-	1	128	111	-	-	2	1	-	-
Wyo.	-	1	57	31	-	-	-	-	-	-
Colo.	-	19	320	725	N	N	2	-	-	-
N. Mex.	-	1	43	447	-	1	-	-	-	-
Ariz.	-	-	681	743	181	30	1	-	-	-
Utah	-	-	55	8	-	2	-	2	-	-
Nev.	-	29	245	318	1	4	-	1	-	-
PACIFIC	-	49	1,594	7,319	10	46	1	19	-	-
Wash.	-	-	672	705	N	N	-	U	-	-
Oreg.	-	45	147	279	-	-	-	5	-	-
Calif.	-	1	663	5,975	10	46	1	14	-	-
Alaska	-	-	108	123	-	-	-	-	-	-
Hawaii	-	3	4	237	-	-	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	78	28	N	N	-	-	-	-
V.I.	-	22	-	7	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases. C.N.M.I.: Commonwealth of Northern Mariana Islands.

* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

† Chlamydia refers to genital infections caused by *C. trachomatis*.

§ Updated monthly from reports to the Division of HIV/AIDS Prevention — Surveillance and Epidemiology, National Center for HIV, STD, and TB Prevention. Last update November 24, 2002.

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending January 18, 2003, and January 19, 2002 (3rd Week)*

Reporting area	*Escherichia coli*, Enterohemorrhagic (EHEC)						Giardiasis		Gonorrhea	
	O157:H7		Shiga toxin positive, serogroup non-O157		Shiga toxin positive, not serogrouped					
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	29	79	1	3	1	-	832	690	11,529	18,468
NEW ENGLAND	4	5	-	-	-	-	31	71	197	462
Maine	-	-	-	-	-	-	7	9	3	5
N.H.	-	1	-	-	-	-	3	4	8	4
Vt.	-	-	-	-	-	-	5	9	5	6
Mass.	2	1	-	-	-	-	16	47	47	212
R.I.	-	-	-	-	-	-	-	-	56	47
Conn.	2	3	-	-	-	-	-	2	78	188
MID. ATLANTIC	-	5	-	-	-	-	371	143	311	2,033
Upstate N.Y.	-	3	-	-	-	-	9	15	120	105
N.Y. City	-	-	-	-	-	-	355	69	10	737
N.J.	-	2	-	-	-	-	1	23	181	494
Pa.	N	N	-	-	-	-	6	36	-	697
E.N. CENTRAL	8	29	-	-	1	-	93	169	3,268	3,729
Ohio	4	5	-	-	1	-	61	38	1,957	973
Ind.	-	1	-	-	-	-	-	-	399	368
Ill.	-	13	-	-	-	-	1	66	352	1,238
Mich.	3	-	-	-	-	-	30	30	489	843
Wis.	1	10	-	-	-	-	1	35	71	307
W.N. CENTRAL	4	14	-	2	-	-	44	47	487	1,029
Minn.	2	3	-	2	-	-	6	3	4	193
Iowa	-	4	-	-	-	-	16	10	21	26
Mo.	2	2	N	N	N	N	14	16	280	491
N. Dak.	-	-	-	-	-	-	-	-	-	1
S. Dak.	-	-	-	-	-	-	1	3	1	13
Nebr.	-	2	-	-	-	-	-	6	-	60
Kans.	-	3	-	-	-	-	7	9	181	245
S. ATLANTIC	5	10	1	1	-	-	182	154	3,416	3,805
Del.	-	-	-	-	-	-	3	4	80	114
Md.	-	-	-	-	-	-	8	8	465	466
D.C.	-	-	-	-	-	-	-	5	97	160
Va.	-	-	-	-	-	-	1	-	382	412
W. Va.	-	-	-	-	-	-	-	-	44	46
N.C.	2	1	-	-	-	-	-	-	887	378
S.C.	-	-	-	-	-	-	-	-	87	556
Ga.	-	9	-	-	-	-	122	34	626	328
Fla.	3	-	1	1	-	-	48	103	748	1,345
E.S. CENTRAL	-	-	-	-	-	-	11	8	1,060	1,802
Ky.	-	-	-	-	-	-	-	-	146	187
Tenn.	-	-	-	-	-	-	5	-	296	649
Ala.	-	-	-	-	-	-	6	8	478	600
Miss.	-	-	-	-	-	-	-	-	140	366
W.S. CENTRAL	1	3	-	-	-	-	5	4	2,055	3,065
Ark.	1	-	-	-	-	-	5	4	253	353
La.	-	-	-	-	-	-	-	-	352	625
Okla.	-	-	-	-	-	-	-	-	126	250
Tex.	-	3	-	-	-	-	-	-	1,324	1,837
MOUNTAIN	4	1	-	-	-	-	56	50	429	715
Mont.	-	-	-	-	-	-	1	2	10	9
Idaho	1	-	-	-	-	-	10	1	6	5
Wyo.	-	-	-	-	-	-	2	-	4	3
Colo.	1	-	-	-	-	-	19	28	104	245
N. Mex.	-	-	-	-	-	-	2	6	23	84
Ariz.	1	-	-	-	-	-	12	-	196	252
Utah	1	-	-	-	-	-	3	1	4	-
Nev.	-	1	-	-	-	-	7	12	82	117
PACIFIC	3	12	-	-	-	-	39	44	306	1,828
Wash.	-	-	-	-	-	-	-	4	125	181
Oreg.	-	5	-	-	-	-	11	33	20	48
Calif.	1	7	-	-	-	-	25	-	137	1,538
Alaska	-	-	-	-	-	-	3	2	20	28
Hawaii	2	-	-	-	-	-	-	5	4	33
Guam	N	N	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	8	5
V.I.	-	-	-	-	-	-	-	-	-	3
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending January 18, 2003, and January 19, 2002 (3rd Week)*

Reporting area	*Haemophilus influenzae*, invasive								Hepatitis (viral, acute), by type	
	All ages		Age <5 years							
	All serotypes		Serotype B		Non-serotype B		Unknown serotype		A	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	55	83	-	-	8	9	-	-	215	496
NEW ENGLAND	5	10	-	-	-	1	-	-	5	25
Maine	-	-	-	-	-	-	-	-	-	1
N.H.	1	-	-	-	-	-	-	-	-	1
Vt.	1	-	-	-	-	-	-	-	1	-
Mass.	1	8	-	-	-	1	-	-	4	11
R.I.	-	-	-	-	-	-	-	-	-	-
Conn.	2	2	-	-	-	-	-	-	-	12
MID. ATLANTIC	5	22	-	-	1	-	-	-	33	54
Upstate N.Y.	1	6	-	-	-	-	-	-	-	1
N.Y. City	3	8	-	-	1	-	-	-	33	20
N.J.	1	6	-	-	-	-	-	-	-	14
Pa.	-	2	-	-	-	-	-	-	-	19
E.N. CENTRAL	2	22	-	-	1	2	-	-	21	51
Ohio	2	10	-	-	1	-	-	-	12	6
Ind.	-	-	-	-	-	-	-	-	-	1
Ill.	-	10	-	-	-	1	-	-	-	31
Mich.	-	-	-	-	-	-	-	-	9	7
Wis.	-	2	-	-	-	1	-	-	-	6
W.N. CENTRAL	3	1	-	-	1	-	-	-	5	24
Minn.	1	-	-	-	-	-	-	-	-	-
Iowa	-	1	-	-	-	-	-	-	4	7
Mo.	1	-	-	-	-	-	-	-	1	4
N. Dak.	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	-	-	-	-	-	1
Nebr.	-	-	-	-	-	-	-	-	-	1
Kans.	1	-	-	-	1	-	-	-	-	11
S. ATLANTIC	20	17	-	-	1	3	-	-	110	138
Del.	-	-	-	-	-	-	-	-	-	-
Md.	5	4	-	-	-	-	-	-	14	30
D.C.	-	-	-	-	-	-	-	-	-	7
Va.	-	-	-	-	-	-	-	-	-	-
W. Va.	-	-	-	-	-	-	-	-	-	-
N.C.	-	3	-	-	-	-	-	-	2	20
S.C.	1	-	-	-	-	-	-	-	-	1
Ga.	4	7	-	-	-	1	-	-	57	31
Fla.	10	3	-	-	1	2	-	-	37	49
E.S. CENTRAL	6	-	-	-	1	-	-	-	4	13
Ky.	-	-	-	-	-	-	-	-	-	1
Tenn.	1	-	-	-	-	-	-	-	1	1
Ala.	5	-	-	-	1	-	-	-	3	3
Miss.	-	-	-	-	-	-	-	-	-	8
W.S. CENTRAL	4	1	-	-	1	-	-	-	2	56
Ark.	1	-	-	-	-	-	-	-	-	4
La.	2	-	-	-	-	-	-	-	1	-
Okla.	1	1	-	-	1	-	-	-	1	-
Tex.	-	-	-	-	-	-	-	-	-	52
MOUNTAIN	8	3	-	-	1	1	-	-	17	20
Mont.	-	-	-	-	-	-	-	-	-	2
Idaho	-	-	-	-	-	-	-	-	-	-
Wyo.	-	-	-	-	-	-	-	-	-	2
Colo.	1	1	-	-	-	-	-	-	3	5
N. Mex.	1	2	-	-	-	1	-	-	-	3
Ariz.	4	-	-	-	-	-	-	-	11	1
Utah	1	-	-	-	1	-	-	-	1	2
Nev.	1	-	-	-	-	-	-	-	2	5
PACIFIC	2	7	-	-	1	2	-	-	18	115
Wash.	-	-	-	-	-	-	-	-	-	-
Oreg.	1	4	-	-	1	1	-	-	2	10
Calif.	-	1	-	-	-	1	-	-	16	105
Alaska	-	-	-	-	-	-	-	-	-	-
Hawaii	1	2	-	-	-	-	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	-	-	3
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending January 18, 2003, and January 19, 2002 (3rd Week)*

Reporting area	Hepatitis (viral, acute), by type				Legionellosis		Listeriosis		Lyme disease	
	B		C							
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	287	230	45	190	35	41	17	21	96	199
NEW ENGLAND	6	13	-	1	1	2	1	1	1	27
Maine	-	-	-	-	-	-	-	-	-	-
N.H.	-	1	-	-	-	-	1	-	-	3
Vt.	1	1	-	1	-	-	-	-	1	-
Mass.	5	8	-	-	-	2	-	-	-	24
R.I.	-	-	-	-	-	-	-	-	-	-
Conn.	-	3	-	-	1	-	-	1	-	-
MID. ATLANTIC	56	60	12	111	1	3	5	4	66	121
Upstate N.Y.	-	1	-	1	1	-	-	2	29	66
N.Y. City	43	40	-	-	-	-	4	1	35	-
N.J.	11	13	12	109	-	-	-	-	-	35
Pa.	2	6	-	1	-	3	1	1	2	20
E.N. CENTRAL	24	27	6	1	16	19	3	6	1	3
Ohio	10	4	-	-	9	13	3	2	1	1
Ind.	-	-	-	-	-	-	-	-	-	-
Ill.	-	3	1	-	-	-	-	-	-	-
Mich.	14	16	5	1	7	5	-	1	-	-
Wis.	-	4	-	-	-	1	-	3	U	2
W.N. CENTRAL	8	9	9	36	1	2	1	-	-	4
Minn.	-	1	-	-	-	-	1	-	-	1
Iowa	-	1	-	-	-	-	-	-	-	1
Mo.	7	4	9	34	-	1	-	-	-	2
N. Dak.	-	-	-	-	-	-	-	-	-	-
S. Dak.	-	-	-	-	-	-	-	-	-	-
Nebr.	-	1	-	2	-	1	-	-	-	-
Kans.	1	2	-	-	1	-	-	-	-	-
S. ATLANTIC	152	61	12	5	14	4	4	1	23	38
Del.	-	1	-	1	-	1	-	-	-	-
Md.	2	8	-	1	3	2	-	-	13	35
D.C.	-	1	-	-	-	-	-	-	-	2
Va.	-	-	-	-	-	-	-	-	-	-
W. Va.	-	-	-	-	N	N	-	-	-	-
N.C.	2	11	1	1	2	-	1	-	5	-
S.C.	-	2	-	-	-	-	-	-	-	-
Ga.	124	11	1	-	1	-	1	-	-	-
Fla.	24	27	10	2	8	1	2	1	5	1
E.S. CENTRAL	3	12	-	6	1	-	2	-	-	-
Ky.	-	2	-	-	-	-	-	-	-	-
Tenn.	2	-	-	-	1	-	-	-	-	-
Ala.	1	3	-	-	-	-	2	-	-	-
Miss.	-	7	-	6	-	-	-	-	-	-
W.S. CENTRAL	1	5	1	24	-	2	-	2	-	4
Ark.	-	4	-	-	-	-	-	-	-	-
La.	1	1	1	-	-	-	-	-	-	1
Okla.	-	-	-	-	-	-	-	-	-	-
Tex.	-	-	-	24	-	2	-	2	-	3
MOUNTAIN	27	13	3	3	1	1	1	1	-	-
Mont.	1	-	-	-	-	-	-	-	-	-
Idaho	-	-	-	-	-	-	-	-	-	-
Wyo.	1	1	-	2	-	-	-	-	-	-
Colo.	7	3	3	1	-	-	-	1	-	-
N. Mex.	-	2	-	-	-	-	-	-	-	-
Ariz.	16	-	-	-	1	-	1	-	-	-
Utah	2	2	-	-	-	1	-	-	-	-
Nev.	-	5	-	-	-	-	-	-	-	-
PACIFIC	10	30	2	3	-	8	-	6	5	2
Wash.	-	-	-	-	-	-	-	-	-	-
Oreg.	3	11	-	2	N	N	-	-	2	-
Calif.	7	18	2	1	-	8	-	6	3	2
Alaska	-	1	-	-	-	-	-	-	-	-
Hawaii	-	-	-	-	-	-	-	-	N	N
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	3	-	-	-	-	-	1	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. -: No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending January 18, 2003, and January 19, 2002 (3rd Week)*

Reporting area	Malaria		Meningococcal disease		Pertussis		Rabies, animal		Rocky Mountain spotted fever	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	40	49	49	85	135	212	140	299	13	12
NEW ENGLAND	1	4	3	6	32	62	21	18	-	-
Maine	1	-	-	1	-	2	-	2	-	-
N.H.	-	1	-	-	-	-	1	-	-	-
Vt.	-	-	-	1	11	11	2	3	-	-
Mass.	-	2	2	4	21	45	8	4	-	-
R.I.	-	-	-	-	-	-	-	2	-	-
Conn.	-	1	1	-	-	4	10	7	-	-
MID. ATLANTIC	18	12	2	14	4	3	21	33	-	2
Upstate N.Y.	-	-	-	5	4	1	14	22	-	-
N.Y. City	18	5	1	3	-	2	5	-	-	-
N.J.	-	6	-	1	-	-	-	6	-	-
Pa.	-	1	1	5	-	-	2	5	-	2
E.N. CENTRAL	3	6	9	16	19	40	-	1	1	1
Ohio	2	2	6	10	17	18	-	-	1	1
Ind.	-	-	2	-	-	-	-	1	-	-
Ill.	-	2	-	2	-	8	-	-	-	-
Mich.	1	2	1	1	2	3	-	-	-	-
Wis.	-	-	-	3	-	11	-	-	-	-
W.N. CENTRAL	4	4	4	3	10	26	20	22	-	-
Minn.	2	-	1	-	-	-	-	-	-	-
Iowa	2	1	2	-	-	13	1	2	-	-
Mo.	-	2	1	2	6	10	-	-	-	-
N. Dak.	-	-	-	-	-	-	1	-	-	-
S. Dak.	-	-	-	1	-	-	-	12	-	-
Nebr.	-	-	-	-	-	-	-	-	-	-
Kans.	-	1	-	-	4	3	18	8	-	-
S. ATLANTIC	10	7	16	11	27	5	71	57	12	9
Del.	-	-	2	-	-	1	-	-	-	-
Md.	4	4	2	1	6	2	2	18	3	3
D.C.	-	1	-	-	-	-	-	-	-	-
Va.	-	-	-	-	-	-	5	12	-	-
W. Va.	-	-	-	-	-	-	3	3	-	-
N.C.	-	2	2	1	6	-	23	21	9	6
S.C.	-	-	-	-	-	2	2	3	-	-
Ga.	1	-	1	3	13	-	35	-	-	-
Fla.	5	-	9	6	2	-	1	-	-	-
E.S. CENTRAL	1	1	3	1	4	9	1	108	-	-
Ky.	-	-	-	-	1	1	-	-	-	-
Tenn.	-	-	1	-	-	1	-	108	-	-
Ala.	1	-	2	1	3	1	1	-	-	-
Miss.	-	1	-	-	-	6	-	-	-	-
W.S. CENTRAL	-	-	5	13	-	20	1	46	-	-
Ark.	-	-	1	2	-	18	-	-	-	-
La.	-	-	3	1	-	-	-	-	-	-
Okla.	-	-	1	-	-	1	1	6	-	-
Tex.	-	-	-	10	-	1	-	40	-	-
MOUNTAIN	-	-	2	5	33	25	5	6	-	-
Mont.	-	-	-	-	-	1	1	-	-	-
Idaho	-	-	-	-	-	4	-	-	-	-
Wyo.	-	-	-	-	-	-	-	1	-	-
Colo.	-	-	-	2	19	13	-	-	-	-
N. Mex.	-	-	1	-	-	5	-	-	-	-
Ariz.	-	-	1	-	10	-	4	5	-	-
Utah	-	-	-	-	2	1	-	-	-	-
Nev.	-	-	-	3	2	1	-	-	-	-
PACIFIC	3	15	5	16	6	22	-	8	-	-
Wash.	-	-	-	1	-	-	-	-	-	-
Oreg.	3	-	5	6	6	6	-	-	-	-
Calif.	-	13	-	9	-	15	-	4	-	-
Alaska	-	-	-	-	-	-	-	4	-	-
Hawaii	-	2	-	-	-	1	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	-	-	-	-	-	-	4	-	-
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending January 18, 2003, and January 19, 2002 (3rd Week)*

Reporting area	Salmonellosis		Shigellosis		*Streptococcal* disease, invasive, group A		*Streptococcus pneumoniae*, invasive			
							Drug resistant, all ages		Age <5 years	
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002
UNITED STATES	935	1,450	793	614	131	197	127	88	15	4
NEW ENGLAND	29	61	3	12	4	13	1	-	-	1
Maine	1	5	-	-	-	2	-	-	-	-
N.H.	2	2	-	-	1	N	-	-	N	N
Vt.	1	4	-	-	1	1	1	-	-	1
Mass.	21	43	3	11	2	9	N	N	N	N
R.I.	-	2	-	-	-	-	-	-	-	-
Conn.	4	5	-	1	-	-	-	-	-	-
MID. ATLANTIC	88	170	47	41	13	34	1	2	2	-
Upstate N.Y.	10	7	6	2	4	9	1	2	2	-
N.Y. City	70	78	33	27	7	17	U	U	U	U
N.J.	1	49	-	3	-	6	N	N	N	N
Pa.	7	36	8	9	2	2	-	-	-	-
E.N. CENTRAL	113	199	32	129	33	41	23	1	11	3
Ohio	79	39	13	57	18	10	23	-	11	-
Ind.	3	4	1	3	-	1	-	1	-	-
Ill.	7	81	2	51	-	16	-	-	-	-
Mich.	23	42	15	12	15	14	-	-	N	N
Wis.	1	33	1	6	-	-	N	N	-	3
W.N. CENTRAL	61	87	24	101	8	8	16	17	1	-
Minn.	14	9	1	13	-	-	-	-	1	-
Iowa	14	14	-	9	-	-	N	N	N	N
Mo.	22	47	18	12	3	2	-	1	-	-
N. Dak.	-	-	-	-	-	-	-	-	-	-
S. Dak.	4	3	2	45	2	-	-	-	-	-
Nebr.	-	3	-	14	-	4	-	3	N	N
Kans.	7	11	3	8	3	2	16	13	N	N
S. ATLANTIC	459	429	581	122	32	47	83	59	-	-
Del.	1	1	19	2	1	-	-	-	N	N
Md.	33	36	57	18	6	N	N	N	N	N
D.C.	-	6	-	3	-	2	-	3	-	-
Va.	7	-	5	-	-	-	N	N	N	N
W. Va.	-	-	-	-	-	-	-	-	-	-
N.C.	67	53	51	14	2	6	N	N	U	U
S.C.	3	7	2	-	1	-	7	9	N	N
Ga.	185	124	244	22	7	26	28	34	N	N
Fla.	163	202	203	63	15	8	48	13	N	N
E.S. CENTRAL	69	79	38	43	2	2	2	4	-	-
Ky.	4	3	2	7	-	1	-	-	N	N
Tenn.	10	12	5	-	2	1	2	4	N	N
Ala.	42	37	26	20	-	-	-	-	N	N
Miss.	13	27	5	16	-	-	-	-	-	-
W.S. CENTRAL	13	95	15	46	1	16	-	1	1	-
Ark.	7	12	1	6	-	-	-	1	-	-
La.	4	3	1	5	-	-	-	-	-	-
Okla.	2	12	13	1	1	2	N	N	1	-
Tex.	-	68	-	34	-	14	N	N	-	-
MOUNTAIN	62	65	35	18	35	14	1	4	-	-
Mont.	2	2	-	-	-	-	-	-	-	-
Idaho	7	5	-	-	2	-	N	N	N	N
Wyo.	1	2	1	-	-	1	-	2	-	-
Colo.	23	31	8	7	10	6	-	-	-	-
N. Mex.	3	5	2	2	5	7	1	2	-	-
Ariz.	15	-	20	-	17	-	-	-	N	N
Utah	4	5	2	5	1	-	-	-	-	-
Nev.	7	15	2	4	-	-	-	-	-	-
PACIFIC	41	265	18	102	3	22	-	-	-	-
Wash.	1	1	-	-	-	-	-	-	N	N
Oreg.	7	21	3	8	N	N	N	N	N	N
Calif.	24	229	13	91	3	17	N	N	N	N
Alaska	6	6	-	1	-	-	-	-	N	N
Hawaii	3	8	2	2	-	5	-	-	-	-
Guam	-	-	-	-	-	-	-	-	-	-
P.R.	-	4	-	1	N	N	-	-	N	N
V.I.	-	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-	U

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE II. (*Continued*) Provisional cases of selected notifiable diseases, United States, weeks ending January 18, 2003, and January 19, 2002 (3rd Week)*

Reporting area	Syphilis				Tuberculosis		Typhoid fever		Varicella (Chickenpox)
	Primary & secondary		Congenital						
	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003	Cum. 2002	Cum. 2003
UNITED STATES	224	258	3	18	88	276	7	15	573
NEW ENGLAND	2	2	-	-	1	12	-	3	118
Maine	-	-	-	-	-	-	-	-	49
N.H.	-	-	-	-	-	-	-	-	-
Vt.	-	-	-	-	-	-	-	-	49
Mass.	2	1	-	-	-	-	-	2	20
R.I.	-	-	-	-	-	7	-	-	-
Conn.	-	1	-	-	1	5	-	1	-
MID. ATLANTIC	12	19	1	5	53	32	3	3	-
Upstate N.Y.	-	-	-	1	-	-	-	-	-
N.Y. City	7	11	-	2	51	7	3	2	-
N.J.	5	7	1	2	-	11	-	1	-
Pa.	-	1	-	-	2	14	-	-	-
E.N. CENTRAL	29	40	-	1	11	12	1	2	340
Ohio	11	6	-	-	3	5	-	-	70
Ind.	-	3	-	-	5	6	-	-	-
Ill.	5	12	-	1	3	1	-	-	-
Mich.	12	18	-	-	-	-	1	-	270
Wis.	1	1	-	-	-	-	-	2	-
W.N. CENTRAL	6	9	-	-	6	24	-	1	1
Minn.	-	4	-	-	1	1	-	1	-
Iowa	-	-	-	-	-	-	-	-	-
Mo.	1	2	-	-	-	18	-	-	-
N. Dak.	-	-	-	-	-	-	-	-	1
S. Dak.	-	-	-	-	1	-	-	-	-
Nebr.	-	2	-	-	-	-	-	-	-
Kans.	5	1	-	-	4	5	-	-	-
S. ATLANTIC	84	65	2	3	2	6	1	5	111
Del.	-	-	-	-	-	-	-	-	-
Md.	13	8	-	-	-	-	1	1	-
D.C.	2	1	-	-	-	-	-	-	-
Va.	4	3	-	-	-	-	-	-	-
W. Va.	-	-	-	-	-	1	-	-	109
N.C.	12	19	-	2	2	2	-	-	-
S.C.	3	5	-	1	-	2	-	-	2
Ga.	10	10	-	-	-	1	-	1	-
Fla.	40	19	2	-	-	-	-	3	-
E.S. CENTRAL	19	36	-	2	4	23	-	-	-
Ky.	5	1	-	-	-	-	-	-	-
Tenn.	7	17	-	1	-	16	-	-	-
Ala.	7	13	-	-	4	7	-	-	-
Miss.	-	5	-	1	-	-	-	-	-
W.S. CENTRAL	37	38	-	4	2	93	-	1	-
Ark.	7	-	-	-	1	-	-	-	-
La.	-	14	-	-	-	-	-	-	-
Okla.	1	7	-	-	1	1	-	-	-
Tex.	29	17	-	4	-	92	-	1	-
MOUNTAIN	14	10	-	-	2	9	-	-	3
Mont.	-	-	-	-	-	-	-	-	-
Idaho	-	1	-	-	-	-	-	-	-
Wyo.	-	-	-	-	1	1	-	-	-
Colo.	-	-	-	-	1	3	-	-	-
N. Mex.	3	1	-	-	-	2	-	-	-
Ariz.	11	8	-	-	-	2	-	-	-
Utah	-	-	-	-	-	-	-	-	3
Nev.	-	-	-	-	-	1	-	-	-
PACIFIC	21	39	-	3	7	65	2	-	-
Wash.	2	1	-	-	4	3	-	-	-
Oreg.	1	1	-	-	2	2	-	-	-
Calif.	18	37	-	3	1	53	2	-	-
Alaska	-	-	-	-	-	1	-	-	-
Hawaii	-	-	-	-	-	6	-	-	-
Guam	-	-	-	-	-	-	-	-	-
P.R.	7	10	-	2	-	-	-	-	-
V.I.	-	-	-	-	-	-	-	-	-
Amer. Samoa	U	U	U	U	U	U	U	U	U
C.N.M.I.	-	U	-	U	-	U	-	U	-

N: Not notifiable. U: Unavailable. - : No reported cases.
* Incidence data for reporting years 2002 and 2003 are provisional and cumulative (year-to-date).

TABLE III. Deaths in 122 U.S. cities,* week ending January 18, 2003 (3rd Week)

Reporting Area	All causes, by age (years)						P&I† Total
	All Ages	≥65	45-64	25-44	1-24	<1	
NEW ENGLAND	532	391	105	22	8	6	63
Boston, Mass.	182	121	41	8	6	6	21
Bridgeport, Conn.	57	42	14	1	-	-	3
Cambridge, Mass.	13	11	1	1	-	-	2
Fall River, Mass.	28	21	6	1	-	-	8
Hartford, Conn.	U	U	U	U	U	U	U
Lowell, Mass.	30	22	4	4	-	-	6
Lynn, Mass.	20	13	5	2	-	-	3
New Bedford, Mass.	22	19	2	1	-	-	3
New Haven, Conn.	38	27	10	-	1	-	3
Providence, R.I.	U	U	U	U	U	U	U
Somerville, Mass.	6	5	1	-	-	-	-
Springfield, Mass.	47	28	15	3	1	-	3
Waterbury, Conn.	28	21	6	1	-	-	-
Worcester, Mass.	61	61	-	-	-	-	11
MID. ATLANTIC	2,138	1,493	416	152	43	30	138
Albany, N.Y.	54	36	10	5	2	1	2
Allentown, Pa.	11	10	1	-	-	-	1
Buffalo, N.Y.	105	87	12	3	-	3	12
Camden, N.J.	29	17	6	3	1	2	1
Elizabeth, N.J.	11	6	2	3	-	-	-
Erie, Pa.	44	32	10	1	1	-	4
Jersey City, N.J.	56	30	18	8	-	-	-
New York City, N.Y.	1,027	722	205	68	16	14	51
Newark, N.J.	49	20	14	9	2	2	4
Paterson, N.J.	31	17	9	2	2	1	-
Philadelphia, Pa.	275	172	70	23	9	1	15
Pittsburgh, Pa.§	36	24	4	5	3	-	1
Reading, Pa.	32	27	3	1	1	-	5
Rochester, N.Y.	145	121	10	11	3	-	19
Schenectady, N.Y.	37	28	8	-	1	-	3
Scranton, Pa.	30	22	6	2	-	-	3
Syracuse, N.Y.	94	65	19	3	2	5	10
Trenton, N.J.	25	16	4	4	-	1	2
Utica, N.Y.	24	19	5	-	-	-	2
Yonkers, N.Y.	23	22	-	1	-	-	3
E.N. CENTRAL	2,433	1,638	526	162	49	57	154
Akron, Ohio	75	57	11	3	1	3	8
Canton, Ohio	46	35	8	1	1	1	7
Chicago, Ill.	384	242	92	29	14	6	22
Cincinnati, Ohio	U	U	U	U	U	U	U
Cleveland, Ohio	134	82	31	9	2	10	4
Columbus, Ohio	246	180	44	14	4	4	26
Dayton, Ohio	155	117	27	7	1	3	15
Detroit, Mich.	229	129	67	21	5	7	13
Evansville, Ind.	54	45	8	1	-	-	2
Fort Wayne, Ind.	95	67	16	7	4	1	3
Gary, Ind.	10	5	3	1	-	1	1
Grand Rapids, Mich.	48	33	12	3	-	-	6
Indianapolis, Ind.	532	352	119	43	9	9	12
Lansing, Mich.	40	29	8	2	-	1	1
Milwaukee, Wis.	121	82	25	6	3	5	8
Peoria, Ill.	53	37	11	2	1	2	8
Rockford, Ill.	70	48	17	4	-	1	7
South Bend, Ind.	49	35	7	4	2	1	4
Toledo, Ohio	92	63	20	5	2	2	7
Youngstown, Ohio	U	U	U	U	U	U	U
W.N. CENTRAL	770	562	133	32	22	21	54
Des Moines, Iowa	126	103	19	1	1	2	6
Duluth, Minn.	45	33	7	1	3	1	4
Kansas City, Kans.	42	29	8	-	5	-	1
Kansas City, Mo.	122	79	30	10	2	1	6
Lincoln, Nebr.	59	49	7	2	-	1	4
Minneapolis, Minn.	68	50	8	4	2	4	11
Omaha, Nebr.	135	106	18	6	2	3	16
St. Louis, Mo.	U	U	U	U	U	U	U
St. Paul, Minn.	57	40	10	3	3	1	2
Wichita, Kans.	116	73	26	5	4	8	4
S. ATLANTIC	1,129	737	242	91	31	27	88
Atlanta, Ga.	81	50	25	1	2	3	4
Baltimore, Md.	129	73	39	11	3	3	12
Charlotte, N.C.	143	91	27	15	9	1	12
Jacksonville, Fla.	188	135	36	10	3	4	21
Miami, Fla.	31	21	8	1	-	1	3
Norfolk, Va.	58	30	14	7	2	5	6
Richmond, Va.	75	48	13	8	3	3	11
Savannah, Ga.	19	15	3	-	-	1	3
St. Petersburg, Fla.	64	49	10	5	-	-	1
Tampa, Fla.	217	155	39	15	4	4	9
Washington, D.C.	100	50	25	17	5	2	2
Wilmington, Del.	24	20	3	1	-	-	4
E.S. CENTRAL	798	548	158	55	20	17	76
Birmingham, Ala.	244	157	58	17	6	6	30
Chattanooga, Tenn.	114	91	14	7	1	1	12
Knoxville, Tenn.	118	87	20	9	1	1	11
Lexington, Ky.	70	40	22	4	1	3	5
Memphis, Tenn.	U	U	U	U	U	U	U
Mobile, Ala.	71	45	15	6	3	2	4
Montgomery, Ala.	46	30	5	6	5	-	5
Nashville, Tenn.	135	98	24	6	3	4	9
W.S. CENTRAL	2,063	1,316	416	170	111	50	158
Austin, Tex.	100	69	18	8	2	3	8
Baton Rouge, La.	37	20	13	3	-	1	1
Corpus Christi, Tex.	89	65	16	4	2	2	10
Dallas, Tex.	242	150	54	25	8	5	19
El Paso, Tex.	113	82	20	7	4	-	5
Ft. Worth, Tex.	129	89	27	9	1	3	6
Houston, Tex.	530	279	94	59	78	20	44
Little Rock, Ark.	83	52	17	7	5	2	3
New Orleans, La.	41	23	11	6	-	1	-
San Antonio, Tex.	393	280	75	24	8	6	28
Shreveport, La.	165	110	40	7	3	5	17
Tulsa, Okla.	141	97	31	11	-	2	17
MOUNTAIN	902	602	201	58	19	22	64
Albuquerque, N.M.	132	92	21	11	3	5	11
Boise, Idaho	4	2	1	-	1	-	-
Colo. Springs, Colo.	50	36	8	2	1	3	5
Denver, Colo.	113	68	29	7	6	3	9
Las Vegas, Nev.	235	152	61	17	1	4	15
Ogden, Utah	33	22	8	3	-	-	3
Phoenix, Ariz.	U	U	U	U	U	U	U
Pueblo, Colo.	32	24	6	2	-	-	1
Salt Lake City, Utah	98	63	22	8	2	3	10
Tucson, Ariz.	205	143	45	8	5	4	10
PACIFIC	1,738	1,196	342	122	43	35	138
Berkeley, Calif.	22	14	7	-	1	-	2
Fresno, Calif.	47	35	5	6	1	-	3
Glendale, Calif.	23	22	1	-	-	-	2
Honolulu, Hawaii	84	55	20	3	3	3	8
Long Beach, Calif.	62	39	8	9	4	2	9
Los Angeles, Calif.	436	288	86	40	12	10	26
Pasadena, Calif.	36	23	6	2	2	3	4
Portland, Oreg.	173	124	30	12	4	3	10
Sacramento, Calif.	48	29	11	5	1	2	3
San Diego, Calif.	197	129	42	13	9	4	14
San Francisco, Calif.	U	U	U	U	U	U	U
San Jose, Calif.	229	167	45	11	3	3	30
Santa Cruz, Calif.	44	36	4	4	-	-	5
Seattle, Wash.	139	99	26	12	-	2	6
Spokane, Wash.	65	47	14	1	-	3	9
Tacoma, Wash.	133	89	37	4	3	-	7
TOTAL	12,503¶	8,483	2,539	864	346	265	933

U: Unavailable. -:No reported cases.

* Mortality data in this table are voluntarily reported from 122 cities in the United States, most of which have populations of ≥100,000. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.

† Pneumonia and influenza.

§ Because of changes in reporting methods in this Pennsylvania city, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.

¶ Total includes unknown ages.

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